DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	CEDAR POND	Lake Area (ha):	31.56
Town:	MILAN	Maximum depth (m):	17.0
County:	Coos	Mean depth (m):	9.4
River Basin:	Connecticut	Volume (m^3):	2952500
Latitude:	44°35'31" N	Relative depth:	2.7
Longitude:	71°16'12" W	Shore configuration:	1.05
Elevation (ft):	1113	Areal water load (m/yr):	21.96
Shore length (m):	2100	Flushing rate (yr^{-1}):	2.30
Watershed area (ha):	1243.2	P retention coeff.:	0.47
% watershed ponded:	0.0	Lake type:	natural w/dam

BIOLOGICAL:		24 February 1993	4 August 1992
DOM. PHYTOPLANKTON (% TOTAL)	#1	COELOSPHAERIUM 50%	UNKNOWN 70%
	#2	TABELLARIA 40%	STAURASTRUM 10%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			665
CHLOROPHYLL-A (µg/L)			10.03
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 47%	COLLOTHECA 24%
	#2	SYNCHAETA 27%	NAUPLIUS LARVA 13%
	#3	NAUPLIUS LARVA 20%	
ROTIFERS/LITER		11	41
MICROCRUSTACEA/LITER		4	30
ZOOPLANKTON ABUNDANCE (#/L)		15	85
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			3.8
BOTTOM DISSOLVED OXYGEN (mg/L)		9.7	0.1
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		7
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	3.6
Hypolimnion volume (m^3) :	1191000
Anoxic volume (m^3) :	166500

CHEMICAL:

Lake: CEDAR POND
Town: MILAN

	24 February 1993		4 August 1992		
DEPTH (m)	4.0	8.0	1.5	5.0	12.0
pH (units)	6.4	6.2	7.2	6.6	6.4
A.N.C. (Alkalinity)	12.1	11.3	8.3	8.1	9.2
NITRATE NITROGEN	0.04	0.04	< 0.02	< 0.02	0.10
TOTAL KJELDAHL NITROGEN	0.21	0.12	0.24	0.23	0.26
TOTAL PHOSPHORUS	0.010	0.008	0.010	0.010	0.009
CONDUCTIVITY (μmhos/cm)	59.2	61.5	55.7	50.4	58.3
APPARENT COLOR (cpu)	55	55	40	48	55
MAGNESIUM			0.84		
CALCIUM			4.4		
SODIUM			4.6		
POTASSIUM			0.59		
CHLORIDE	7	7	6	5	6
SULFATE	6	6	6	5	6
TN : TP	25	20	24	23	40
CALCITE SATURATION INDEX			2.5		

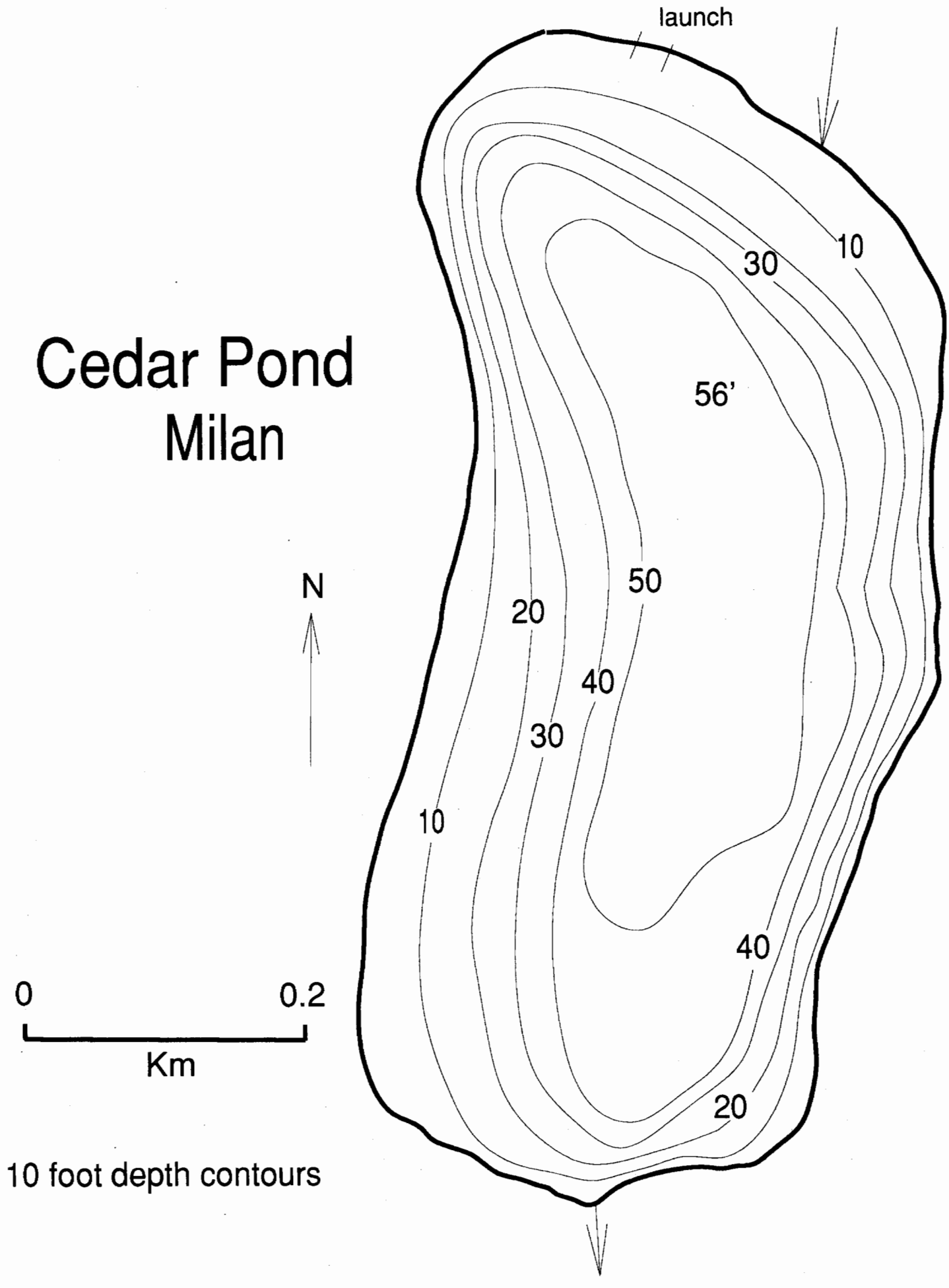
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
5	2	0	2	9	Meso.

COMMENTS:

1. Good launch site off Route 110B; paved ramp but a little steep.
2. A number of large boats with large motors were observed on the pond.
3. A beach area was present adjacent to the launch; it is not an official public beach sampled in our public swimming beach program.
4. This pond was previously surveyed in 1981. There was no change in trophic classification. The chlorophyll was higher but the transparency was also better in 1992. The dissolved oxygen depletion was greater in the bottom waters in 1992. More data is needed to determine if there is any trend in the water quality.
5. The unknown dominant phytoplankton during the summer survey appeared to be some type of resting cell or cyst.



Cedar Pond
Milan

10 foot depth contours

FIELD DATA SHEET

LAKE: CEDAR POND
DATE: 08/04/92

TOWN: MILAN
WEATHER: SUNNY, SOME CLOUDS, WINDY

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	21.5	9.8	108 %
	1.0	21.5	9.8	108 %
	2.0	21.2	9.8	108 %
	3.0	19.4	10.0	108 %
	4.0	14.5	10.3	99 %
	5.0	11.5	9.8	87 %
	6.0	9.2	8.4	72 %
	7.0	7.8	7.7	62 %
	8.0	6.2	7.3	58 %
	9.0	5.8	6.5	50 %
	10.0	5.5	5.8	45 %
	11.0	5.0	5.2	41 %
	12.0	5.0	3.9	30 %
	13.0	5.0	2.6	20 %
	14.0	5.0	0.2	2 %
	15.0	5.0	0.2	2 %
	16.0	5.0	0.1	1 %

SECCHI DISK (m): 3.8
BOTTOM DEPTH (m): 17.0
TIME: 1445

COMMENTS:

*Dissolved oxygen values are in mg/L

beach
Cedar Pond
Milan
N
0
0.2
Km

AQUATIC PLANT SURVEY

LAKE: CEDAR POND TOWN: MILAN DATE: 08/04/92

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
E	Eriocaulon septangulare	Pipewort	Sparse
W	Potamogeton	Pondweed	Sparse
N	Nymphaea	White water lily	Sparse
S	Sparganium	Bur reed	Sparse
L	Lysimachia terrestris	Swampcandle	Sparse
Y	Nuphar	Yellow water lily	Sparse
T	Typha	Cattail	Sparse

OVERALL ABUNDANCE: Sparse

GENERAL OBSERVATIONS:

1. Plants remained sparse in 1992, as they were in 1981, although pipewort had an expanded range in 1992 (perhaps due to a more efficient effort in 1992).

2. Chroomonas (45%) was the dominant wholewater phytoplankton. Cryptomonads (50%) and blue-greens (35%) were the dominant classes.